The Lazarette Gazette

NEWS FROM
The University of Texas at Austin
MARINE SCIENCE INSTITUTE
Port Aransas, Texas 78373-1267

Vol. 2, Issue 17, 10 September 1993

Department of Marine Science

On behalf of the Department I warmly welcome the students who joined our graduate program this year and wish them every success with their graduate studies. Randy Garza and Kristen Rodda, who had been working in Curtis Suttle's laboratory for the past year, will be pursuing advanced degrees under his supervision. Most of us at Port Aransas became acquainted with Andrew Biersmith, Sharon Herzka, Mark Lanzotti, Kun-Seop Lee and Scott Williams when they started their coursework here this summer. However, not everyone has met Kristen Drescher, Todd Sperry and Sue Ziegler who began their graduate studies in Austin this fall. Do stop by the Department of Marine Science to meet them the next time you are in Austin if you can. Andrew will be conducting his research in Ron Benner's or Peter Thomas' laboratory when he returns to Port Aransas next summer. Sharon and Kun-Seop will be working under Ken Dunton's direction, Mark's research will be supervised by Paul Montagna. Todd will be working with Peter Thomas and Sue with Ron Benner. Scott Williams and Kristen Drescher will be at FAML under Connie Arnold's and Joan Holt's direction, respectively.

The ten new students who joined the department this year bring the total enrollment up to 32, an impressive number considering that our graduate program has only been in existence for four years. Increased numbers of graduate students in residence at Port Aransas have enabled the department to offer more advanced courses in Marine Science during the long sessions. Two advanced courses are being taught by faculty in Port Aransas for the first time this semester. Paul Montagna is teaching a course on Marine Ecology and Curtis Suttle a course on Phytoplankton Ecology. Another two courses, Nutrient Chemistry by Terry Whitledge and Microbial Ecology by Ron Benner, will be taught next semester. Altogether, I think excellent progress has been made in establishing a strong graduate program in marine science in the few years since its inception. Additional course offerings during the long semester at Port Aransas should further improve the quality of graduate education in the Department of Marine Science. —*Peter Thomas*

New Species of Algae Found on Jetty

Andrew Czerny finds new species — Our congratulations to Andrew Czerny for *capturing* a new species of algae on the north jetty last autumn. The *new* species, which had been misidentified in numerous collections throughout the United States and Mexico (it had at least four other names), was recently confirmed by Dr. Michael J. Wynne (The University of Michigan). Andrew collected the plant last autumn, but none of us could identify the plant from the literature. A check of our herbarium revealed other identical specimens that were clearly misidentified. The specimens were then shipped to Dr. Wynne, who has since presented an oral presentation and submitted a paper for publication on the new species, which is now referred to as *Prionitis pterocladina (Prionitis czerniiensis* didn't make the final cut). We have since collected the plant at the Port Mansfield and Port Isabel jetties and Andrew, undeterred, continues looking for other new species and a chance at immortality. —*Ken Dunton*

Trip Reports & Travel

Travel ending between August 14 and September 10 —

✈*Rick Tinnin*, August 15—16, Los Fresnos, conduct a training session for the SEDL Grant/Leadership Team.

✈*Allen Davis*, August 22, College Station, invited speaker at Aquacultura y Pesqueria, Tecnologia para America Latina, Texas A & M University..

✈*Terry Whitledge*, August 23—26, Anchorage, Alaska, to attend PICES (North Pacific Marine Science Organization) meeting for the Bering Sea Working Group.

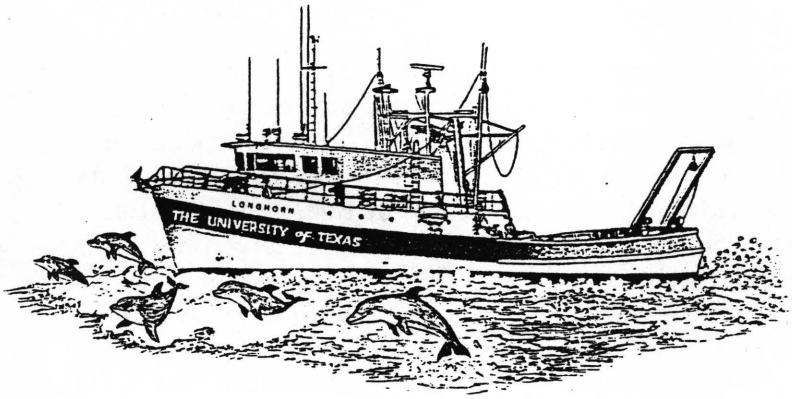
✈*Ron Benner*, August 30—September 2, Wilmington, North Carolina, to serve on NOAA NVRP review panel.

✈*H. Elizabeth-Abel*, August 28—September 2, Portland, Oregon, present paper *The Role of Free Amino Acids in the Osmotic Adjustment of Larval Red Drum (Sciaenops ocellatus) and Spotted Seatrout (Cynoscion nebulosus).*

Egabrag Wocs

R/V LONGHORN—flagship of The University of Texas, 105' of brightly painted steel, twin 12V71 diesels, two 75-kw generators, hydraulic crane and winches, satellite communications—is thoroughly described in the *R/V Longhorn Handbook*. But here are some things you won't find in the handbook.

How we did NOT get the LONGHORN — First we decided we needed a new and larger research vessel. Next UT appropriated funds to make a study and write a grant proposal. We visited Marine Labs around the country, studying existing research vessels, and we hired a very competent Boston naval architect, John Gilbert. Howard Chapelle (dean of U. S. naval architects and at that time on the staff of the Smithsonian) reviewed the plans for us. We wrote and rewrote a lengthy proposal and sent it to NSF. We did **not** get the money.



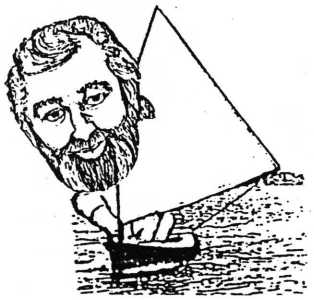
How we DID get the LONGHORN — Her mother was a 55 foot Chris Craft. Those shiny 12V71 Detroit diesels weren't in the *R/V LONGHORN* when the Cajuns at Allied Shipyard shoved her over the muddy bank with a bulldozer into Bayou Lafourche. Instead, she was powered by two Caterpillar diesels from the *MARCIA K*, which had been donated to MSI. Huge for the *MARCIA K* (her main salon, over the engine compartment, had only five feet of headroom), they were about right for the new boat. The *MARCIA K* survived Hurricane Celia, but her hull was crushed beyond reasonable repair. The engines were saved and *MARCIA K* sold (several owners and many years later she was still *under repair* and could be seen from the bridge as you passed over the Intracoastal on your way to Flour Bluff). And her father was a septic tank. The basic financing for building the *R/V LONGHORN* came from Federal disaster funds. MSI submitted a long list of damages with cost estimates for approval. We decided the best strategy would be to treat the matter not as a new boat, but as a *hull replacement*, and not make a big deal out of it. We listed *hull replacement—MARCIA K* right after *septic tank repairs—dorm C*. We **did** get the money.

Other items not in the manual — ■ Robert L. Harrelson designed the *R/V LONGHORN*. In the early 60's Bob and I were members of an informal group who met on a regular basis at Nolan's to drink beer and talk sailboats. Bob was a bit of a celebrity because his design for a 26 ft. sailing trimaran had been featured in *Popular Boating*. Harrelson made his real living in the workboat business, but sailboats were his true love. Later he designed several bilge-keel sailboats, and published a number of articles on them. For a few months, while between regular jobs, Bob worked for MSI as Boat Captain of the *R/V VAGABOND*. ■ With only $86,000 from disaster relief and $40,000 from UT, *R/V LONGHORN* was really a bare boat when launched. ■ Her "main" winch was a portable type from the *MARCIA K*, powered by a gas Briggs and Stratton motor. ■ The first crane was mounted on the main deck just forward of the transom. It came off an old surplus military wrecker; the chassis was sold to provide funds for installation by Don Gibson and Ron Musial. ■ First there were two 35-kw generators, each powered by 371 Detroit diesels; next one 371 was replaced with a 671 diesel (used—from the houseboat *LAZY DAZ*) for extra power for deck

hydraulics; next the other 371 was replaced with a new 671 diesel for extra power for a bowthruster. Finally the original 35-kw generators were replaced with new 75-kw units. ■ One of the original lavatories had been salvaged from a WWII Destroyer Escort (which had fought a German U boat off the Atlantic Coast). ■ The lavatories first drained (following the convention of the builder) directly into the bilge. This was not a great idea. After a few had gotten seasick and thrown up into the lavatories, the bilges smelled bad — real bad. No wonder this stuff is not in the handbook. —*John Thompson*

Personnel

Dr. Susan Safford, has a tenure-track assistant professor position in the Biology Department of Lincoln University in Pennsylvania. Congratulations Susan! Susan received her Ph.D. in 1992 with Peter Thomas as her major professor. Lincoln University is a minority institution with a strong tradition in educating black students. Susan has promised to help us recruit promising students with an interest in marine science. —*Peter Thomas*



Dr. Peter Thomas, in full academic regalia, graces the masthead this issue. If the little sailboat were an office, that would bring his office total to five. You may find Peter in his research office (M229) or the office of the Acting Chairman (M213) or the Graduate Advisor's Office (M201B) or the Austin office of the Department of Marine Science (ESB102). Peter is a Senior Research Scientist at MSI and Professor in the Department of Marine Science. He received his Ph.D. from the University of Leicester, England and his B.Sc. from Hull, England. His major area of interest is *Fish Reproductive Physiology/Marine Toxicology; purification and molecular actions of hormones and their receptors, environmental endocrinology, applications of endocrinology to fish culture; biochemical and environmental toxicology of marine fishes, especially reproduction.* Peter and his wife, Jacki, live in Portland. Jacqueline is *Dr.* Jacqueline Thomas, Professor of French at Texas A & M — Kingsville.

Cathy Roberts, an assistant in the fiscal office, is leaving her employment here to join the Water District force. We wish her luck and she will be missed. We would like to welcome ***Sandra Birdwell***, the new assistant. This past week you could have talked to *Venus* at the Jerry Lewis Telethon. Our ***Venus Mills*** and spouse, Jim, were volunteers. ***Troy Roepke*** is donning another ring — on the right brow. Ouch! **Beau Hardegree** accepted full time employment with Wes Tunnel at Texas A & M — Corpus Christi. Beau and wife, Tammy, are expecting a new arrival around Christmas time. Good luck, Beau!

—*JoAnn Page*

Seminars

■ *Dr. Donald M. Baltz*, Coastal Fisheries Institute, LSU, *Spawning Habitat Requirements of Spotted Seatrout in Louisiana Waters,* Seminar Room, September 13, 1:30 pm.

Letters to the editor

■ *We received a memo to Venus Mills which had the identification plate from the Chevy 4 X 4 attached, together with a note from Ken Dunton to Venus, finally with a note from Venus to J. H. Thompson. This is all reproduced below to let Joe Morgan know his spirit is still alive at MSI.*

Memorandum THE UNIVERSITY OF

To: Venus Mills

From: those damn scientists

Subject: Chev 4X4

Venus – We crashed the 4X4. This is all we could recover.

Ken

9/2/93:
REROUTED NOTE TO
J.H. Thompson----
Suggestion after reading this note from Ken Dunton: Perhaps all scientists should retest for the Texas Driver's License.
Venus

■ *Thank you so much for running the cat contest, but we will not be needing the 17 tons of kitty litter after all. We are giving up the idea of raising a large cat; we heard from a Dr. Ruth who suggested other activity. (Tammy and Shawn, Fishkill, N.Y.)*

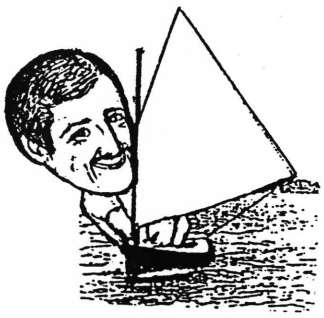
Marine Education Services

I am pleased to have been invited to talk to the Advisory Council at the September meeting. I will be discussing the Marine Education Services Program and all of the activities that are part of MES including the visiting class program, teacher workshops, the operation of the visitors center including tour programs for the public and school groups. I will also discuss the minority awareness workshop programs funded by NSF, visiting class use of the new pier laboratory and the future development of an on-site, salt marsh environmental center. I look forward to talking with you about these exciting programs.

The list of visiting class boat trips *(see KATY cruise reports, p. 8)* reflects a total of 50 different groups ranging in age from elementary (6th grade) through college. For safety reasons and because it allows for a more productive educational experience for the students, we limit the class size on any KATY trip to 25 people. Because some of the groups are larger than 25 students and teachers, some will double up and take two short cruises in their allotted four hour time slot. This fall, we will actually conduct 62 separate cruises which will accommodate 1575 students.

We begin the cruise experience with a review of safety instructions and a general overview of the central Texas coast, specifically the Corpus Christi and Redfish Bay systems. Enroute to marker 1 in the ship channel, the students are able to observe a variety of birds, ships, offshore rigs and bottle nosed dolphins. At our first station, we collect a plankton sample using a 0.5 m plankton net. Students are given the opportunity to observe the sample with hand lenses, a discovery scope and finally through a video microscope. We emphasize the adaptations of the plankton and point out the differences between the permanent and temporary plankton. We move into Redfish bay for a mud grab to show the students the diversity and abundance of life in the mud bottom. They are also able to observe the connection between the free living, temporary planktonic life stages of crabs, snails, mollusks, worms and sea stars and the adult forms found in the mud. The highlight of the cruise is the two trawl samples, one in Redfish Bay and one in the ship channel. We make short trawls and immediately place the catch in a running seawater, live box for observation. We make every effort to return the majority of the catch to the water alive. We discuss with the students their observations on the form, function and adaptations of the various fish and invertebrates that are found in the trawls. On the return trip, we stop at marker 8 and take a surface and bottom water sample. The students test the water for dissolved oxygen and salinity. It is a full 4 hours of non-stop activity and provides an exciting opportunity for the students to become aware of the tremendous abundance and diversity of life in a coastal bay system. Approximately 4,500 students participate in this shipboard experience each year.

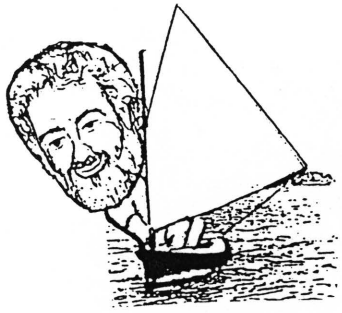
—Rick Tinnin



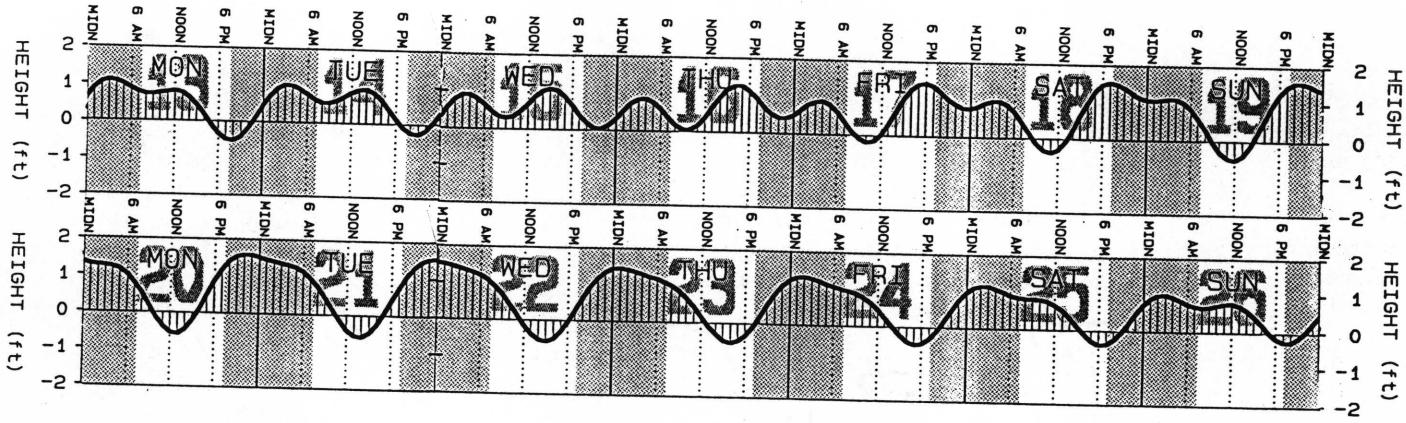
Fishes from the Beaufort join kelp in arctic aquarium — Thanks to a dedicated group of fisheries biologists spending their summer vacation in the bountiful Beaufort Sea near Prudhoe Bay, our coldwater aquarium now features pelagic fishes in addition to the many invertebrates and algae inhabiting the 55-gallon exhibit. The fishes that just made the 4,000 mile trip (as Alaska and American Airlines fly it) included several arctic cod, seven nine-spined sticklebacks, one arctic cisco, three arctic flounder, one four-horned sculpin and one snailfish. With the exception of three arctic cod casualties (two in shipment, one by the hungry anenome in the tank), these fishes join two lonely benthic individuals that have quietly inhabited the aquarium for the last year (another four-horned sculpin and an eelpout or gunnel). The fish were captured in nets by a group of biologists led by Mr. Larry Martin from LGL Ecological Research Associates (most from Bryan, Texas!). Larry Martin has participated extensively in studies of kelp communities in the Beaufort Sea with MSI marine botanists, and has shared many exciting and unforgettable diving experiences with Ken Dunton since 1984. We thank the LGL group for their efforts, and invite them to visit their samples in Port Aransas, which have now adapted to a diet of frozen "Golden Gate 4" brine shrimp and freshly hatched live brine shrimp (provided by Fuiman's Fish and Brine Shrimp Hatchery at nominal charge). At a balmy summer temperature of 5^0C, all organisms appear to be healthy and happy and are looking forward to winter, when we will drop the temperature 1 or 2^0C.

—Ken Dunton

Tony's Tidings...



Tide Predictions—September 13—26 *(For tidal heights at the tide tower, South Jetty, the Aransas Pass. Heights are in feet above or below mean sea level. The shaded area is nighttime. Remember, this is tidal height, not tidal current. Slack water is when the wiggly line crosses the MSL line, not at peaks and valleys, where the tidal current will be a full flood or ebb.)*



Weather report—August 23—September 5

23 - 29 AUG 1993	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	23	24	25	26	27	28	29	
AIR TEMP HIGH	89.0	88.1	90.5	81.5	84.8	87.8	87.4	87.0
AIR TEMP LOW	80.4	80.4	78.8	73.0	75.0	78.6	80.6	78.1
SEA TEMP LOW	85.1	--	84.6	--	84.1	--	84.2	84.5
RAINFALL TOTAL	0	0	0	2.05	0	0	0	2.05

30 AUG-5 SEP 1993	MON	TUE	WED	THU	FRI	SAT	SUN	MEAN
DATE	30	31	1	2	3	4	5	
AIR TEMP HIGH	88.1	--	89.0	86.9	86.7	86.0	88.5	87.5
AIR TEMP LOW	80.2	--	77.7	78.9	79.3	78.6	76.8	78.6
SEA TEMP LOW	82.3	--	83.3	--	83.3	--	82.8	82.9
RAINFALL TOTAL	0	0	0	0	0	0	0.58	0.58

—Andi Wickham

Cruise Reports & Boat Operations

R/V KATY SCHEDULE —

■ *September*		
11 afternoon	MSI, HMCU Workshop	Rick Tinnin
14 morning	MacArthur High School	Carolyn Pesthy
14 afternoon	Texas A & M — Corpus Christi	David McKee
14 (evening) & 15	MSI, research	Scott Holt
17 evening	Our Lady of the Lake University	Maurice Clark
21 morning	Incarnate Word Academy	Debra Hernandez
21 afternoon	Winston School	Lehman Marks
24 evening	Our Lady of the Lake University	Maurice Clark
27 morning	Riviera High School	Josephine Smith
28 morning	Robstown High School	Gilbert Guerra
29 morning	Robstown High School	Gilbert Guerra
30 morning	Texas A & M — Corpus Christi	Bart Cook
30 afternoon	Wm James Middle School	Ava Myers
■ *October*		
01 morning	Oliver Wendell Holmes H. S.	Richard Cramer
01 afternoon	Southwest Texas State Univ.	Richard Earl
04 all day	Tarleton State University	Phillip Murry
05 morning	Rockport High School	Mark Dehn
06 morning	Rockport High School	Mark Dehn
07 morning	Texas A & M — Corpus Christi	Bart Cook
08 morning	Christian Heritage School	Lynn Mundy
08 afternoon	Texas A & M — Kingsville	Jon Baskin
11 morning	McNeil High School	Susan Wilson
12 morning	Port Aransas High School	Mica Crownover
13 morning	Port Aransas High School	Mica Crownover
14 morning	Moody High School	Bud Behrend
14 afternoon	McAllen High School	Chris Krull
15 morning	University of Texas — Arlington	Bob McMahon
15 afternoon	Southwest Texas State University	Stan Sissom
18 afternoon	John Marshall High School	Bill Slingerland
20 morning	Chilton High School	Don McGinty
20 afternoon	John Jay High School	Carol Johnson
21 morning	Moody High School	Bud Behrend
21 afternoon	St. Austin's School	Jane Slater
22 morning	University of Texas — Brownsville	David McNeely
22 afternoon	UT—Austin, Dedman Scholars	Elaine Declerck
23 morning	Southwest Texas State University	Sandra West
25 afternoon	John Marshall High School	Kathy Langford
28 morning	Moody High School	Bud Behrend
29 afternoon	Bannonckburn Elementary	Sarah Ann Gowdey
■ *November*		
01 afternoon	John Marshall High School	Bill Slingerland
02 morning	Incarnate Word Academy	Cynthia Ramirez
06 morning	Texas A & M University	Drew Vastano
06 afternoon	Austin Community College	Stephen Rodi
12 morning	Austin Community College	Yvonne Estes
12 afternoon	James Bowie High School	Bruce Hall
15 afternoon	John Marshall High School	Bill Slingerland
16 morning	Fayetteville High School	Robin Buff
19 morning	Austin Community College	Stephen Ziser
19 afternoon	New Braunfels Middle School	Kristie Thompson
20 morning	Gregory-Portland MS-TWDB	Jim Bowman
■ *December*		
04 afternoon	Austin Community College	Stephen Rodi
06 morning	Northside Independent School District	Judy Fowles

R/V ETTA ARMSTRONG works off the Brazos —MSI's largest *small* boat, the *ETTA ARMSTRONG*, recently completed an 18 day trip for GERG (Geochemical and Environmental Research Group) of Texas A & M University. Mark McGarity operated the *ETTA* out of Freeport with work taking place in the Gulf off the mouth of the Brazos River and close in to the surf line. The *ETTA* was primarily operating a *pinger* for the extensive survey work led by TAMU's Roger Fay. Mark reported that the *ETTA* operated almost flawlessly during the entire cruise and proved to be almost ideal for the work. (*ETTA* is a beamy 32 foot Lafitte Skiff from Jefferson Fiberglass Boat Company; she has an air-conditioned cabin and good speed from her Volvo inboard/outboard with its *push/pull* prop.) This was the most extensive single cruise for the *ETTA*, since joining the MSI fleet.

Attaboys

■ *Thank you so much for allowing the members of the Texas Lyceum Association a chance to visit the Marine Science Institute and view your fine program. The visit to your facility contributed greatly to the overall success of the weekend. We were especially impressed with the Mariculture Research Facility. We appreciate your warm hospitality and wish you great success. Thanks again for your kindness.*
(To Terry Whitledge and John Thompson from Lukin T. Gilliland, Jr.)

■ *Greetings from Corpus Christi. I apologize for taking so long to get back to you to express my appreciation for everything that you and your staff did to make the program for the Texas Lyceum meeting in late July such a rousing success. I have received rave reviews from a number of my colleagues. Thank you for making me look so good. Each time I have received compliments I have hastened to point out that you and your personnel were responsible and deserve all of the credit. If there is any way in which I can return the favor, please let me know. Best wishes to you.*
(To Terry Whitledge from Tito Guerrero, III)

Egabrag Wocs II

Reducing paperwork — Previously I mentioned how our government had saved the *R/V LONGHORN* from having a motorcycle bounce off the radome. Here is another item the clipping service has sent to research vessel operators in the quest to make sure we don't miss any important officious machination of the federal bureaucracy. Page #44612 of the *Federal Register/Vol. 58, No. 162*, concerns *Drawbridge Operation Regulations; East Fork of Hoquiam River, WA*. One finally discovers the key words *...this final rule...merely revokes the operating regulations for a drawbridge that no longer exists*. Elsewhere on page #44612 we find, *This final rulemaking contains no collection of information requirements under the Paperwork Reduction Act*. Thank goodness for the Paperwork Reduction Act. This week I received 20 pages of reduced paperwork, maybe next week it will be down to 19. —*John Thompson*

Facilities & Equipment

New pickup truck — A new 3/4 ton Ford pickup truck is going on line next week to replace the old crewcab. The new truck is a conventional pickup, airconditioned, automatic transmission. A receiver for the bar hitches has been installed along with a sprayed-on bed-liner. It is an LPG dual-fuel vehicle (as required by law for state agencies).

Lease amended with USFWS — In 1992 an acre of land was leased to the United States Fish and Wildlife Service's National Fisheries Contaminant Research Center. USFWS NFCRC planned to construct a field station (the acre is in the area around the settling tank building). The project was designed and bid, but the bids were far beyond funds available. USFWS has the project again in their budget cycle and hopes to build in their FY 1995. The existing lease, which contained a default clause for failure to commence substantial construction in two years, has been amended to permit USFWS to go ahead with their project.

Editor's Note

First, I apologize for leaving out a line last issue in Paul Montagna's travel log—and it was a special lead at that. Here it is: ***My family, Angela and the three kids, came along.*** *They had a wonderful time. It was quite amusing...* The rest of this last sentence, which did get printed, was *watching my kids try to communicate with other children in the neighborhood.* Don't blame the proof readers. Somehow this happened when I made some final corrections on that page. Regarding *Egabrag Wocs* and the *R/V LONGHORN*, I now realize that cutting her in two pieces and welding in another 20 feet in the middle didn't even get mentioned. Nor did I tell about the time she lost power coming in the basin entrance, got jammed by a strong North wind against the bulkhead, and was pulled off with my Bronco (Ford, not horse). Others may some day write of the time they barbequed a Whaler on her deck (smallboat, not Captain Ahab); of midnight boarding by automatic-weapons-toting Coast Guard; or axing the trawl tow line as a Mexican Gunboat bore down. There are no doubt even better stories we will never hear—or at least not until all concerned are safely retired. Мы не знаем told me he thought the *R/V TORNADO* would have been a more appropriate choice for a boat carrying Dr. Thomas. Thanks for help with this issue to Tony Amos, Andi Wickham, Lynn Amos, Kathy Quade, JoAnn Page, Patty Baker and especially to Peter Thomas, Ken Dunton and Rick Tinnin. The *Lazarette Gazette* is not printed or mailed with appropriated funds.

—John Thompson